

Date: Thursday, 6/28/2007 2:21:35 PM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: A119 BUBBLE WINDOW
Job Number	: 33247A		
Estimate Number	: 12911		
P.O. Number	: NIA	Part Number	: D36242
This Issue	: 6/28/2007 S.O. No. : NIA	Drawing Number	: D3624 Rev.C.
Prsht Rev.	: NC	Project Number	: NIA
First Issue	: NIA Type : THERMOFORMING	Drawing Revision	: REV C 467.06.28
Previous Run	: 33245A	Material	: NIA
Written By	:	Due Date	: 7/10/2007 Qty: 5 Um: Each
Checked & Approved By	:		
Comment	: Est. A - Thermoform in house 6/27/2007 DL		

Additional Product **EST Rev: A New Issue**

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	MACRYLICS177	0.177" PLEXIGLAS G CLEAR CAST ACRYLIC SH
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Comment: Qty: 10.0000 sf(s)/Unit Total: 50.0000 sf(s)
 0.177" PLEXIGLAS G CLEAR CAST ACRYLIC SH

6.28.07 PTO. 07.07.21 DL
 Patch: N 104325 M 105075

2.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1

6.28.07 DL PTO

Trim Blank for Thermoformer

3.0	THERMOFORMING	THERMOFORMING MACHINE
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Comment: THERMOFORMING MACHINE

Thermoform as per Dwg. D3624 Rev. A and Folio FTA 004 Rev. A

Dwg. Rev. _____

Folio Rev. _____

PTO
 6.28.07 DL 07.07.21 DL

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

1) Check Surface finish for undesired marks, voids, dimples etc.

2) Check depth of bubble to ensure conformity to drawing tolerances.

PTO
 6.28.07 DL 07.07.21 DL

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
07.07.20	1	RE-WRITE FOLIO DUE TO CORRUPT OPERATING PROGRAM.	DL	07.07.20				
07.07.21	2	Verify program re-write 3 parts.	DL	07.07.21				

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
June 28/07	③	1. SCRAP - BLISTERS. 1 - USE FOR JIG. 3 - GOOD. 1 - MAY NEED DEVIATION.	DL	Placed under review 07.06.29. All production to be scrapped. 7 pieces tot.	DL 07.07.18	DL	DL	DL
07.07.21	2	2 - SCRAP BLISTERS (REWRITE) 3 - GOOD AS PER FOLIO REV B.	DL	Rewrite folio to correct. Verify parts with ENG.	DL	DL	DL	DL

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: A119 BUBBLE WINDOW

Job Number: 33247A

Part Number: D36242

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



07.02.24 wh.

Comment: HAND FINISHING RESOURCE #1

Mark out with template and trim to finish dimensions.

6.0

QC6

DIMENSIONAL CHECK



07.07.23

Comment: DIMENSIONAL CHECK

7.0

QC8

SECOND CHECK



07.07.23

Comment: SECOND CHECK

8.0

HAND FINISHING ~~#1~~

HAND FINISHING RESOURCE #2



Comment: HAND FINISHING RESOURCE #2

1 - Polish out mould marks

2 - Etch Part# & Batch #

07.07.24 wh.

(P10)

9.0

QC5

INSPECT WORK TO CURRENT STEP



07.07.24

Comment: INSPECT WORK TO CURRENT STEP

07.07.23 (B)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Reve 7/7/23 SA

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07.07.23

Job Completion



u 07.07.23

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

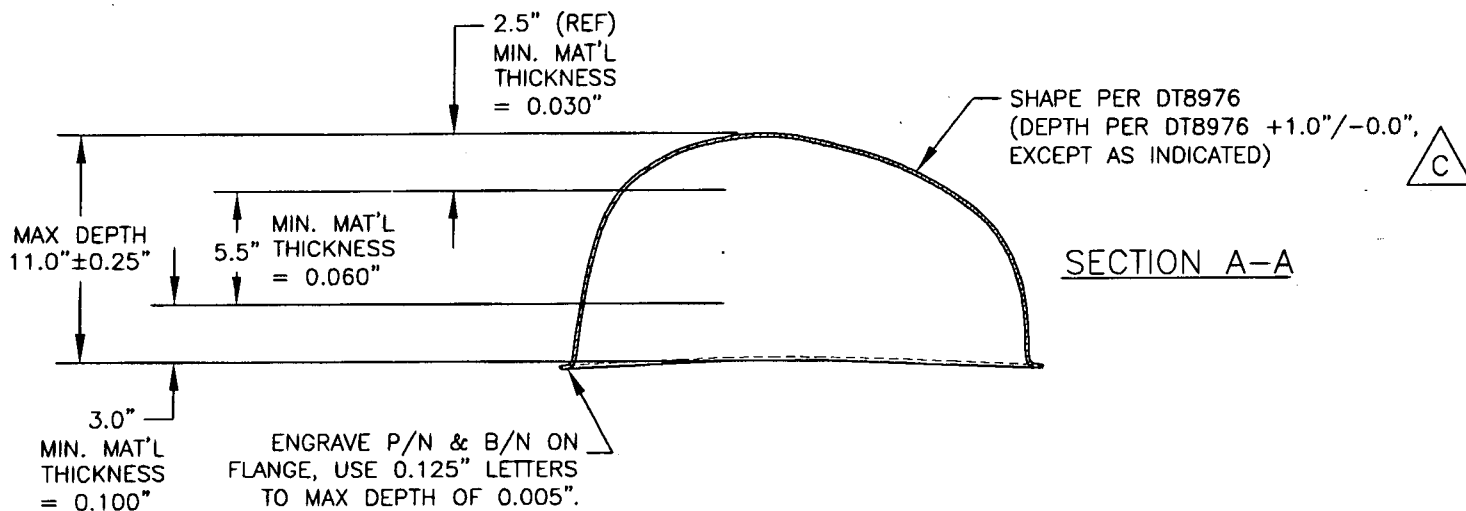
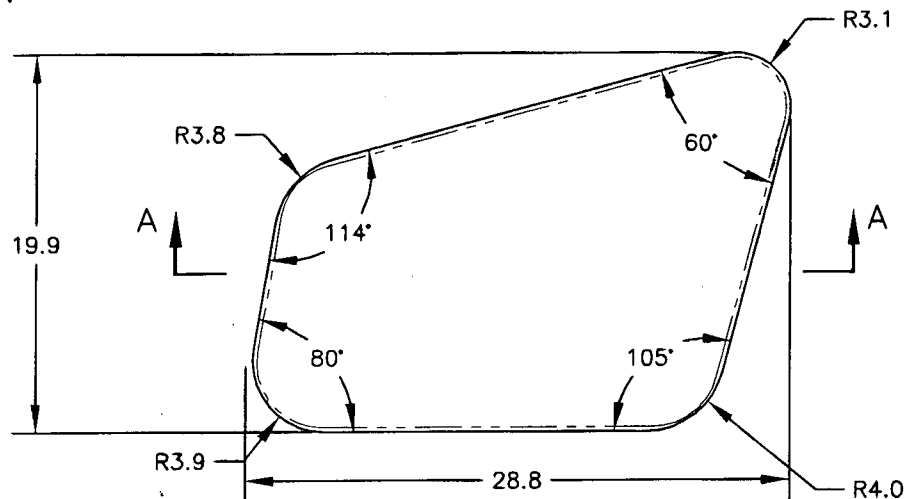
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-23	9.0	1 part sent not to ship.	<i>[Signature]</i> 05/01/12	Use for a tool, per David Shepherd. Identify AS DT			<i>[Signature]</i> 05/01/12	<i>[Signature]</i> 07-23

NOTE: Date & initial all entries



DESIGN 90	DRAWN BY 90	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3624	REV. C SHEET 1 OF 1
DATE 07.06.27		TITLE BUBBLE WINDOW (A119)	SCALE 1:10
A	07.05.14	NEW ISSUE	
B	07.05.24	11.0" DEPTH WAS 12.0"	
C	07.06.27	ADD TOOL TO CONTROL BUBBLE SHAPE	

RELEASED
07.06.28. #



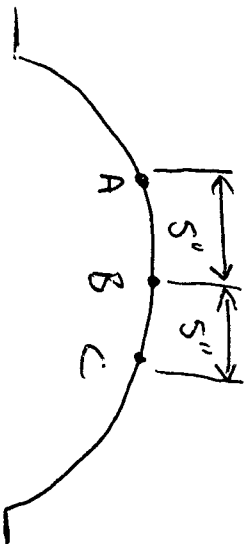
D3624-2 BUBBLE WINDOW

- 1) MATERIAL: POLYCAST II CLEAR ACRYLIC OR PLEXIGLAS "G" CAST ACRYLIC, 0.177" THICK (REF DART SPEC. M-ACRYLIC-S.177)
- 2) FORM PER DT8953
FORMING PROCESS:
 - (a) DRAPE MAT'L OVER DT8953 MOLD
 - (b) HEAT TO 286°F
 - (c) VACUUM TO SPECIFIED HEIGHT
 - (d) LEAVE FOR AT 2 MINUTES TO COOL
 - (e) TRIM WINDOW PER DT8954
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

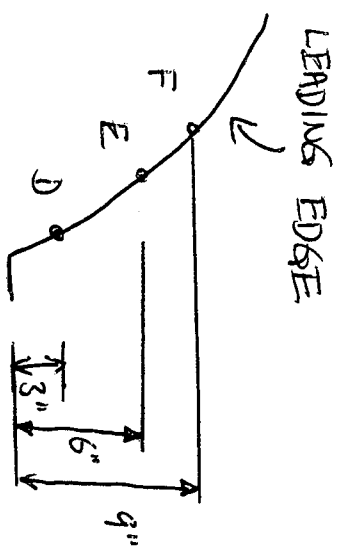
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 33247A

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DARTD3624-1

SIDE VIEW



TOP VIEW

	TEST FLIGHT PRATO (REF)	RETURNED (REF)	M105075 (1)	M105075 (2)	M105075 (3)
A	0.051	0.078	0.057	0.057	0.061
B	0.034	0.058	0.048	0.040	0.054
C	0.038	0.039	0.052	0.041	0.059
D	0.095	0.060	0.080	0.087	0.087
E	0.082	0.052	0.063	0.072	0.068
F	0.065	0.059	0.057	0.058	0.063
			SCAMP # 07.07.23 SAME of POLL OVERSIGHT	ACCEPTABLE # 07.07.23 ADDM WASH	ACCEPTABLE # 07.07.23 SYCLINE-

07.07.23

Date: Wednesday, 23/04/2008 1:11:46 PM

User: Linda Lacelle

JOB HISTORY : DETAIL

Job Number	: 33247A	Customer	: Dart Helicopters Services
Estimate Number	: 12911	DWG Name	: A119 BUBBLE WINDOW
Purchase Order #	:	Part Number	: D36242
Complete Date	: 23/07/2007 3:45:40	DWG Number	: D3624
		Rev.	: REV. A

DUE DATE	ORDERED	DELIVERED
10/07/2007	5	3

1.0 MACRYLICS177-0.177" PLEXIGLAS G CLEAR CAST ACRYLIC SH							
DATE	EMPLOYEE	TYPE	Qty		COST		
23/07/2007	LACE01: Lacelle, Linda	MACRYLICS177	193.000		\$753.17		
						Lot # 104325 Qty. 163	
						Lot # 105075 Qty. 30	
Subtotal:		QTD:	0	CTD:	193	\$753.17	

2.0 HAND FINISHING1 Internal Operation							
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
21/07/2007	LEGE01: Leger, Daryl	Run	0.000	0.25	\$4.77	0.25	9.25
Subtotal:		QTD:	0	CTD:	0	0.25	\$14.02

3.0 THERMOFORMING Internal Operation							
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
21/07/2007	LEGE01: Leger, Daryl	Run	0.000	2.50	\$47.68	2.50	97.73
Subtotal:		QTD:	0	CTD:	0	2.50	\$145.41

4.0 QC2 Internal Operation							
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
21/07/2007	LEGE01: Leger, Daryl	Run	0.000	0.25	\$4.77	0.25	0.00
Subtotal:		QTD:	0	CTD:	0	0.25	\$4.77

5.0 HAND FINISHING1 Internal Operation							
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
21/07/2007	LEGE01: Leger, Daryl	Run	0.000	2.25	\$42.91	2.25	83.24
Subtotal:		QTD:	0	CTD:	0	2.25	\$126.15

	TIME	COST
Machine Time:	5.25	\$190.22
Labor:	5.25	\$100.13
Sub-contract (external Op.):		\$0.00
INVENTORY ITEM:		\$753.17
SUB-COMPONENT (SUB-JOB):		\$0.00
Total:		\$1043.52

COST PER UNIT:	\$347.84
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